Derek G Gray

List of Publications by Year
in descending order

103 papers	16,332 citations	28190 55 h-index	29081 104 g-index
107 all docs	107 docs citations	107 times ranked	11410 citing authors

#	Article	IF	Citations
1	Isolation and utilization of cellulosic elements from the plant cell wall. Botany, 2020, 98, 77-80.	0.5	4
2	Cellulose nanocrystal research; A personal perspective. Carbohydrate Polymers, 2020, 250, 116888.	5.1	16
3	Surface Charge Influence on the Phase Separation and Viscosity of Cellulose Nanocrystals. Langmuir, 2018, 34, 3925-3933.	1.6	120
4	Order and gelation of cellulose nanocrystal suspensions: an overview of some issues. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170038.	1.6	33
5	In Situ Preparation of Silver Nanoparticles in Paper by Reduction with Alkaline Glucose Solutions. ACS Omega, 2018, 3, 9449-9452.	1.6	15
6	Hybrid fluorescent nanoparticles from quantum dots coupled to cellulose nanocrystals. Cellulose, 2017, 24, 1287-1293.	2.4	43
7	Recent Advances in Chiral Nematic Structure and Iridescent Color of Cellulose Nanocrystal Films. Nanomaterials, 2016, 6, 213.	1.9	102
8	Twistâ€"Bend Stage in the Relaxation of Sheared Chiral Nematic Suspensions of Cellulose Nanocrystals. ACS Omega, 2016, 1, 212-219.	1.6	21
9	Chiral Nematic Structure of Cellulose Nanocrystal Suspensions and Films; Polarized Light and Atomic Force Microscopy. Materials, 2015, 8, 7873-7888.	1.3	91
10	Droplets of cellulose nanocrystal suspensions on drying give iridescent 3-D â€œcoffee-stainâ€•rings. Cellulose, 2015, 22, 1103-1107.	2.4	99
11	Functionalization of cellulose nanocrystal films via â€œthiolâ€"eneâ€•click reaction. RSC Advances, 2014, 4, 6965.	1.7	53
12	Formation of Chiral Nematic Films from Cellulose Nanocrystal Suspensions Is a Two-Stage Process. Langmuir, 2014, 30, 9256-9260.	1.6	178
13	Isolation and handedness of helical coiled cellulosic thickenings from plant petiole tracheary elements. Cellulose, 2014, 21, 3181-3191.	2.4	23
14	Chiral nematic phase formation by aqueous suspensions of cellulose nanocrystals prepared by oxidation with ammonium persulfate. Cellulose, 2014, 21, 2567-2577.	2.4	88
15	Cellulose Nanocrystals Incorporating Fluorescent Methylcoumarin Groups. ACS Sustainable Chemistry and Engineering, 2013, 1, 1160-1164.	3.2	78
16	Estimation of the surface sulfur content of cellulose nanocrystals prepared by sulfuric acid hydrolysis. Cellulose, 2013, 20, 785-794.	2.4	226
17	A³-Coupling catalyzed by robust Au nanoparticles covalently bonded to HS-functionalized cellulose nanocrystalline films. Beilstein Journal of Organic Chemistry, 2013, 9, 1388-1396.	1.3	67
18	SEM imaging of chiral nematic films cast from cellulose nanocrystal suspensions. Cellulose, 2012, 19, 1599-1605.	2.4	212

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19	Viscosity measurements of dilute aqueous suspensions of cellulose nanocrystals using a rolling ball viscometer. Cellulose, 2012, 19, 1557-1565.	2.4	25
20	Gelation of cellulose nanocrystal suspensions in glycerol. Cellulose, 2012, 19, 687-694.	2.4	59
21	Bactericidal Paper Impregnated with Silver Nanoparticles for Point-of-Use Water Treatment. Environmental Science & Technology, 2011, 45, 1992-1998.	4.6	461
22	Reinforcement with cellulose nanocrystals of poly(vinyl alcohol) hydrogels prepared by cyclic freezing and thawing. Soft Matter, 2011, 7, 2373.	1.2	189
23	Electrospinning of fluorescent fibers from CdSe/ZnS quantum dots in cellulose triacetate. Journal of Applied Polymer Science, 2011, 119, 803-810.	1.3	22
24	Nanocelluloses: A New Family of Natureâ€Based Materials. Angewandte Chemie - International Edition, 2011, 50, 5438-5466.	7.2	3,550
25	Contact Angle Measurements on Smooth Nanocrystalline Cellulose (I) Thin Films. Journal of Adhesion Science and Technology, 2011, 25, 699-708.	1.4	83
26	Polyelectrolyte Multilayer Films Containing Cellulose: A Review. ACS Symposium Series, 2010, , 95-114.	0.5	7
27	Model Cellulose I Surfaces: A Review. ACS Symposium Series, 2010, , 75-93.	0.5	5
28	Protein alignment using cellulose nanocrystals: practical considerations and range of application. Journal of Biomolecular NMR, 2010, 47, 195-204.	1.6	30
29	Composition of lignocellulosic surfaces: comments on the interpretation of XPS spectra. Cellulose, 2010, 17, 117-124.	2.4	25
30	Direct Surface Force Measurements of Polyelectrolyte Multilayer Films Containing Nanocrystalline Cellulose. Langmuir, 2010, 26, 17190-17197.	1.6	59
31	Surface Grafting of Cellulose Nanocrystals with Poly(ethylene oxide) in Aqueous Media. Langmuir, 2010, 26, 13450-13456.	1.6	219
32	Incorporation into paper of cellulose triacetate films containing semiconductor nanoparticles. Cellulose, 2009, 16, 319-326.	2.4	22
33	Birefringence in spin-coated films containing cellulose nanocrystals. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 325, 44-51.	2.3	147
34	Transcrystallization of polypropylene at cellulose nanocrystal surfaces. Cellulose, 2008, 15, 297-301.	2.4	113
35	Cationic surface functionalization of cellulose nanocrystals. Soft Matter, 2008, 4, 2238-2244.	1.2	494
36	Triphase Equilibria in Cellulose Nanocrystal Suspensions Containing Neutral and Charged Macromolecules. Macromolecules, 2007, 40, 3429-3436.	2.2	36

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37	CdSe/ZnS QDs Embedded in Cellulose Triacetate Films with Hydrophilic Surfaces. Chemistry of Materials, 2007, 19, 4270-4276.	3.2	33
38	Dispersion of cellulose nanocrystals in polar organic solvents. Cellulose, 2007, 14, 109-113.	2.4	196
39	Morphological and Optical Characterization of Polyelectrolyte Multilayers Incorporating Nanocrystalline Cellulose. Biomacromolecules, 2006, 7, 2522-2530.	2.6	339
40	Induced Phase Separation in Low-Ionic-Strength Cellulose Nanocrystal Suspensions Containing High-Molecular-Weight Blue Dextrans. Langmuir, 2006, 22, 8690-8695.	1.6	44
41	Surface Forces Measurements of Spin-Coated Cellulose Thin Films with Different Crystallinity. Langmuir, 2006, 22, 3154-3160.	1.6	66
42	Friction and forces between cellulose model surfaces: A comparison. Journal of Colloid and Interface Science, 2006, 303, 117-123.	5.0	79
43	Formation of cellulose-based electrostatic layer-by-layer films in a magnetic field. Science and Technology of Advanced Materials, 2006, 7, 319-321.	2.8	117
44	Preface to the International Chemical Congress of Pacific Basin Societies (Pacifichem2005). Science and Technology of Advanced Materials, 2006, 7, 303-304.	2.8	0
45	Induced phase separation in cellulose nanocrystal suspensions containing ionic dye species. Cellulose, 2006, 13, 629-635.	2.4	26
46	Critical comparison of methods for surface coverage by extractives and lignin in pulps by X-ray photoelectron spectroscopy (XPS). Holzforschung, 2006, 60, 149-155.	0.9	26
47	AFM of adsorbed polyelectrolytes on cellulose I surfaces spin-coated on silicon wafers. Cellulose, 2005, 12, 127-134.	2.4	41
48	Effect of Reaction Conditions on the Properties and Behavior of Wood Cellulose Nanocrystal Suspensions. Biomacromolecules, 2005, 6, 1048-1054.	2.6	1,369
49	Parabolic Focal Conics in Self-Assembled Solid Films of Cellulose Nanocrystals. Langmuir, 2005, 21, 5555-5561.	1.6	125
50	Smooth model cellulose I surfaces from nanocrystal suspensions. Cellulose, 2003, 10, 299-306.	2.4	176
51	Structural and Mechanical Properties of Polyelectrolyte Multilayer Films Studied by AFM. Macromolecules, 2003, 36, 8819-8824.	2.2	100
52	Influence of Dextran on the Phase Behavior of Suspensions of Cellulose Nanocrystals. Macromolecules, 2002, 35, 7400-7406.	2.2	89
53	Interfacial Tension between Isotropic and Anisotropic Phases of a Suspension of Rodlike Particles. Langmuir, 2002, 18, 633-637.	1.6	50
54	Cellulose Crystallites. Chemistry - A European Journal, 2001, 7, 1831-1836.	1.7	192

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55	Induced Circular Dichroism of Chiral Nematic Cellulose Films. Cellulose, 2001, 8, 5-12.	2.4	76
56	Cellulose Crystallites:Â A New and Robust Liquid Crystalline Medium for the Measurement of Residual Dipolar Couplings. Journal of the American Chemical Society, 2000, 122, 5224-5225.	6.6	150
57	Effect of microcrystallite preparation conditions on the formation of colloid crystals of cellulose. Cellulose, 1998, 5, 19-32.	2.4	895
58	A Method To Preserve the Chiral Nematic Order of Lyotropic Ethylcellulose and (Acetyl)(ethyl)cellulose Mesophases in Solid Films. Chemistry of Materials, 1998, 10, 1720-1726.	3.2	20
59	Chiral Characteristics of Thin Wood Sections. Holzforschung, 1997, 51, 1-5.	0.9	13
60	Induced Circular Dichroism of Isotropic and Magnetically-Oriented Chiral Nematic Suspensions of Cellulose Crystallites. Langmuir, 1997, 13, 3029-3034.	1.6	100
61	Effect of Counterions on Ordered Phase Formation in Suspensions of Charged Rodlike Cellulose Crystallites. Langmuir, 1997, 13, 2404-2409.	1.6	258
62	Title is missing!. Cellulose, 1997, 4, 209-220.	2.4	187
63	Effects of Ionic Strength on the Isotropicâ^'Chiral Nematic Phase Transition of Suspensions of Cellulose Crystallites. Langmuir, 1996, 12, 2076-2082.	1.6	672
64	Homogeneous alkylation of cellulose in lithium chloride/dimethyl sulfoxide solvent with dimsyl sodium activation. A proposal for the mechanism of cellulose dissolution in LiCl/Me2SO. Carbohydrate Research, 1995, 268, 319-323.	1.1	70
65	Chiral nematic suspensions of cellulose crystallites; phase separation and magnetic field orientation. Liquid Crystals, 1994, 16, 127-134.	0.9	416
66	Characterization of hydrogen bonding in cellulose-synthetic polymer blend systems with regioselectively substituted methylcellulose. Macromolecules, 1994, 27, 210-215.	2.2	177
67	Fluorescence emission from mechanical pulp sheets. Journal of Photochemistry and Photobiology A: Chemistry, 1993, 73, 59-65.	2.0	53
68	High-resolution solid-state 13C NMR study of ethylcellulose films. Journal of Polymer Science, Part B: Polymer Physics, 1993, 31, 671-676.	2.4	3
69	A matrix method for modelling liquid crystal textures. Liquid Crystals, 1993, 13, 23-30.	0.9	7
70	Atomic force microscopy of cellulose microfibrils: comparison with transmission electron microscopy. Polymer, 1992, 33, 4639-4642.	1.8	178
71	Facile method for the preparation of tri-O-(alkyl)cellulose. Journal of Applied Polymer Science, 1992, 45, 417-423.	1.3	41
72	The preparation of O-methyl- and O-ethyl-celluloses having controlled distribution of substituents. Carbohydrate Research, 1991, 220, 173-183.	1.1	81

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73	Preparation and chiroptical properties of tritylated cellulose derivatives. Macromolecules, 1990, 23, 1452-1457.	2.2	42
74	Properties of Carbon Fiber Surfaces. ACS Symposium Series, 1989, , 168-184.	0.5	9
75	Optical rotatory dispersion from liquid crystalline solutions and films of hydroxypropylcellulose. Liquid Crystals, 1989, 6, 717-726.	0.9	3
76	Chiroptical filters from aqueous (hydroxypropyl) cellulose liquid crystals. Journal of Applied Polymer Science, 1989, 37, 2517-2527.	1.3	18
77	Chiroptical behavior of (acetyl)(ethyl)cellulose liquid-crystalline solutions in chloroform. Macromolecules, 1989, 22, 2086-2090.	2.2	55
78	Preparation and liquid-crystalline properties of (acetyl)(ethyl)cellulose. Macromolecules, 1989, 22, 2082-2086.	2.2	39
79	Induced CD provides evidence for helical solution conformation in cellulosic chains. Biopolymers, 1988, 27, 479-491.	1.2	22
80	Cholesteric order in gels and films of regenerated cellulose. Biopolymers, 1988, 27, 1363-1374.	1.2	41
81	Electron microscopic evidence for cholesteric structure in films of cellulose and cellulose acetate. Biopolymers, 1988, 27, 1999-2004.	1.2	36
82	Circular reflectivity from the cholesteric liquid crystalline phase of (2-ethoxypropyl)cellulose. Macromolecules, 1988, 21, 1251-1255.	2.2	40
83	Adsorption of n-alkanes on carbon fibers at zero surface coverage. Langmuir, 1988, 4, 743-748.	1.6	39
84	Cholesteric properties of cellulose acetate and triacetate in trifluoroacetic acid. Macromolecules, 1988, 21, 2914-2917.	2.2	41
85	Solid cholesteric films cast from aqueous (hydroxypropyl)cellulose. Macromolecules, 1987, 20, 33-38.	2.2	86
86	Optical properties of (acetoxypropyl)cellulose mesophases: factors influencing the cholesteric pitch. Polymer, 1985, 26, 1435-1442.	1.8	39
87	Chemical characteristics of cellulosic liquid crystals. Faraday Discussions of the Chemical Society, 1985, 79, 257.	2.2	70
88	Liquid crystalline phase transition of a semiflexible polymer: acetoxypropyl cellulose. Macromolecules, 1985, 18, 1753-1759.	2.2	42
89	Optical properties of hydroxypropyl cellulose liquid crystals. I. Cholesteric pitch and polymer concentration. Macromolecules, 1984, 17, 1512-1520.	2.2	143
90	Title is missing!. Die Makromolekulare Chemie, 1983, 184, 1727-1740.	1.1	36

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91	The propanoate ester of (2-hydroxypropyl)cellulose: a thermotropic cholesteric polymer that reflects visible light at ambient temperatures. Macromolecules, 1982, 15, 1262-1264.	2.2	81
92	Surface Properties of Cellulose and Wood Fibers. ACS Symposium Series, 1982, , 421-434.	0.5	2
93	Liquid crystal formation from the benzoic acid ester of hydroxypropylcellulose. Die Makromolekulare Chemie Rapid Communications, 1982, 3, 449-455.	1.1	24
94	Surface characterization of poly(ethylene terephthalate) film by inverse gas chromatography. Journal of Applied Polymer Science, 1982, 27, 71-78.	1.3	31
95	Cholesteric liquid crystalline phases based on (acetoxypropyl)cellulose. Macromolecules, 1981, 14, 715-719.	2.2	141
96	The adsorption of hydrocarbons on cellophane. Journal of Colloid and Interface Science, 1981, 82, 318-325.	5.0	86
97	Adsorption of n-alkanes at zero surface coverage on cellulose paper and wood fibers. Journal of Colloid and Interface Science, 1980, 77, 353-362.	5.0	545
98	Ordered Phase Formation in Concentrated Hydroxpropylcellulose Solutions. Macromolecules, 1980, 13, 69-73.	2.2	325
99	Adsorption, spreading pressure, and london force interactions of hydrocarbons on cellulose and wood fiber surfaces. Journal of Colloid and Interface Science, 1979, 71, 93-106.	5.0	156
100	Gas Chromatographic and Static Measurements of Solute Activity for a Polymeric Liquid-Crystalline Phase. Macromolecules, 1979, 12, 562-566.	2.2	30
101	The surface tension of aqueous hydroxypropyl cellulose solutions. Journal of Colloid and Interface Science, 1978, 67, 255-265.	5.0	84
102	Gas chromatographic measurements of polymer structure and interactions. Progress in Polymer Science, 1977, 5, 1-60.	11.8	80
103	Liquid Crystalline Structure In Aqueous Hydroxypropyl Cellulose Solutions. Molecular Crystals and Liquid Crystals, 1976, 34, 97-103.	0.9	362